Human Resources Management Studies – A Different Perspective

Part I: Human Resources Classification Theory

In human resources management (HRM), much attention is given to the processes and procedures of human resources (HR) usage rather than taking a somewhat different perspective of looking at the underlying principles of human behavior from a resource standpoint – hence the title of this paper. Therefore, a new theory is proposed herein and to be called human resources (HR) classification theory. This theory will attempt to model those principles of human behavior that relate to HR usage. There are at least three classifications that can be modeled from this theory: Classification I is ideas-based, involving ideas and concepts as the core of the HR classification model. Classification II is people-based, involving people as the core. Classification III is materials-based, involving materials in the real world. This division of ideas, people, and materials, is similar to job description categories such as data, people, and things. However, the theory does not compartmentalize the workplace so distinctly. It focuses on the elemental nature of work behavior itself, as well as delving deep into the relationships such work type elements have in a workplace setting. For instance, the fields of industry that the classifications find application in can vary, and more than one classification can apply in the same industry. So what the classifications primarily do is help define the essence of the type of human resources deployed in those fields. This is crucial when understanding motivational behavior from an HRM standpoint.

HR classification theory subscribes to what is almost a self-evident axiom that the degree of separation of someone's type of work (that he/she is engaged in) from the inherent bent of talent and interest that the person naturally possesses will be inversely proportional to that person's suitability for the work, regardless of the skills, training, and other external factors bearing on that work. And this suitability entails not only motivation, but also the levels of success, productivity, and quality produced. Of course, exhaustive studies to test such a theory would be useful, but anecdotally, we just need to look at the average workplace today.

Workers who are bored, unproductive, and/or produce poor quality work, will most likely fall into that "inversely proportional" rule. Even those who are very good at what they do will fall into this category, especially if they are not challenged enough. In fact, the level of the challenge will no doubt relate directly to the classification type. This is where HR classification theory goes further (than the above-mentioned axiom). By defining classification types, one garners greater insight into such motivational relationships. For instance, on the issue of worker boredom, the challenges for the RESEARCHER worker type in Classification I (ideas-based) are ongoing just because of the very nature of that work. However, the moment the research turns into a routine process (e.g. in order to gather data, etc.), the challenge may quickly dissipate. Thus, such a worker may delegate information-gathering processes to others such as the USER worker type who are more suited for such routine work. Perhaps many a potential lab technician would be such if they weren't turned off by the fact that much of the lab work involves routine, procedural tasks.

At this point, the objection may be raised that there are no such jobs where, for instance, only "pure" RESEARCHER worker type tasks are performed. This is true to an extent. The idea is that as close as a person can get in their work environment to such ideal worker type and classification match, the better their performance will be, producing a win-win situation for all parties involved, e.g. both employer and employee.

In certain instances (e.g. HR Classification I (ideas-based)), a subclassification is in the model. This is where a worker type is distinctive enough to stand on its own but at the same time involves two categories instead of one. Therefore, the subclassification is really a blend of the two classifications and, in essence, representative of both classifications. Thus, the classification model still holds in all cases.

On the next page appear the tabular definitions of at least three classifications in HR classification theory.

HR Classification I (Ideas-based)
Field Applications: Physics, Computer Science (CS)

Classification Type	Category I	Category II	Category III
Worker Type	RESEARCHER	IMPLEMENTOR	USER
Primary Role Type	Thinker	Builder	User
Primary Environment Type	Abstract	Abstract/Real	Real
Field Example(s)	Theoretical Physicist, Systems Architect, Computer Scientist	Experimental Physicist, Software Engineer, Logical DBA	Astronomer, Astronaut, Software User, PC Support
Query Type	Why? What (to think of)?	What? How (to implement idea(s))?	How? What (to use in idea implementation)?

Subclassification Type	Category I/II	Category II/III
Worker Type	PROTOTYPER	ANALYST
Primary Role Type	Thinker/Builder	Builder/User
Primary Environment Type	Abstract/Real	Real
Field Example(s)	Software Designer	DBA, Business Systems Analyst

HR Classification II (People-based)
Field Applications: Sales/Marketing, Psychology

Classification Type	Category I	Category II	Category III
Worker Type	ANALYST	COMMUNICATOR	SUPPORTER
Primary Role Type	Thinker/Listener	Talker/Listener	Supporter/Expediter
Primary Environment Type	Abstract/Real	Real	Real
Field Example(s)	Marketing Research Analyst, Psychoanalyst	Sales Representative, Psychologist	Social Worker, Sales Clerk
Query Type	Why (do people do/say things)?	How? What (to communicate to people)?	How? What (to do for people)?

HR Classification III (Material-based)
Field Applications: Building Construction, Mining*

Classification Type	Category I	Category II	Category III
Worker Type	ORGANIZER	MODIFIER	HANDLER
Primary Role Type	Organizer	Builder/Destroyer	Handler/Mover
Primary Environment Type	Real	Real	Real
Field Example(s)	Site Foreman, Construction Project Manager	Bricklayer, Backhoe Operator	Miner, Construction Laborer
Query Type	What? How (to organize materials modification/handling)?	What? How (to modify materials)?	What? How (to handle materials)?

* Note that categories are for only the Material component of the industry (e.g. not included for the Mining industry would be the case of, say, a geologist as a RESEARCHER worker type in HR Classification I (Ideas-based)

Part II: Organizational Group Dynamics

HRM studies would not be complete if the behavior of groups were not also studied, especially in an organizational setting. Therefore, insights into organizational group dynamics would contribute much to understanding the positive as well as negative influences that group behavior can have on the effectiveness of HR usage in an organizational setting.

Difference of Opinion Rule:

Often, differences of opinion in a group setting can have a negative influence on HR usage, especially if there is a lack of consensus for going forward in decision-making. Conversely, such differences can have a positive effect by contributing multiple input in, say, a brainstorming session. In either case, the probability of having consensus can be calculated to a certain extent by applying certain variables to the situation. This paper proposes that in HR classification theory, there is a general rule which shall be called the Difference of Opinion Rule, with the following formula to be added to the probability calculus:

The probability (p(U)) of the unanimity of a specified opinion is inversely proportional to the total number of possible opinions (x) exponentially multiplied by the group's size (y) and weighted by the sum of the probabilities
$\sum_{i=1}^{N} p(e_i)$ of all external factors (e_i) that would sway the specified opinion.

Therefore,

$$p(U) = \frac{1}{x^y} + \sum_{i=1}^{N} p(e_i)$$

For example, if there were 2 possible opinions (Yes, No) for a group of 3 people, and an external factor had a 10% chance of swaying a group member to the "Yes" opinion, and another external factor had a 20% chance of swaying a group member to the "Yes" opinion, then x = 2, y = 3, $p(e_1) = .1$, and $p(e_2) = .2$, and therefore p(U) = .275 or a 27.5% chance that all the group's members will have a "Yes" opinion unanimously.

Meeting Engagement Rule:

This paper proposes another general rule in HR classification theory that focuses in on the nature of group meetings, and to be named herein as the Meeting Engagement Rule. This rule states that the degree to which one would be engaged verbally, mentally and/or emotionally during a group meeting is dependent upon the interest the person has in the subject at hand, the environment that the person is currently in (e.g. physically, mentally, emotionally), and another factor proposed herein as the Participation Allowance Factor (PAF). This PAF value can prove to be very significant when analyzed carefully in a group setting. While it is very difficult to quantify how much a person is engaged during a group meeting, the PAF value helps, when properly defined, to do such quantifying. Therefore, the following formulaic description is proposed for addition to the probability calculus:

The PAF value is itself dependent upon the group's size (y) and the degree of participation that the meeting's dynamics allows for (d). This degree value (d) is in turn dependent upon the probability that group participation will occur via verbal communication (p(V)) which in turn is influenced by at least two Boolean values (True or False), namely, allowance (a) which answers the question if verbal communication (e.g. comments) is allowed during the meeting (in other words, is someone giving a talk or presentation without feedback or questions permitted), and invitation (i) which answers the question if verbal communication from the group is invited, encouraged, solicited, etc. (by actually stating so during the meeting). It may appear obvious that if condition #1 is False (a = 0), condition #2 will be False also (i = 0). But a closer look proves differently.

If condition #1 is False (verbal communication from the group not allowed; a = 0), we cannot assume that the group was verbally informed of such a condition for the meeting. For instance, if the group is intimidated by the speaker, the setting, or other factors, the group members may be technically allowed to

communicate verbally but may feel that it is inappropriate, thus a constraint existing. So, in essence, this constraint produces a Boolean value for condition #1 of False (a = 0). Now if the meeting's chairman, speaker, etc. feels that verbal feedback from their audience is permitted, they may encourage the group to provide such, even sincerely. In this case, condition #2 has a Boolean value of True (i = 1). But the combined effect (logically, but not mathematically as "a times i") of conditions #1 (a = 0) and #2 (i = 1) gives a probability of near zero, say, less than 1 in 100 instances (p(V) = <.01).

Conversely though, if condition #1 is True (a = 1) but condition #2 is False (i = 0), there is a much greater chance that the combined effect (logically, but not mathematically as "a times i") of conditions #1 (a = 1) and #2 (i = 0) will give a high probability of near 1, say, greater than 99 in 100 instances (p(V) = >.99). But saying "a much greater chance" implies a probability range (e.g. .01 to .99) to such a scenario which in turn implies other external factors of influence. These factors can be…(for future research)

Postmortem Forensics:

This paper proposes HR classification theory to include the classification of results analysis, a sort of abstract forensic laboratory, for peeling away the layers of cause and effect relationships that exist after the finishing of an event, project, etc. This postmortem forensics approach by classification is designed to help define such relationships and contribute to greater understanding of such things as why projects fail, why events occur, etc. in an organization from a group dynamics perspective. Although in principle, the classification could be used for individual performance and behavior, it has wider and more pronounced effect when applied to group settings. For instance, by classifying the data extant at a project's completion, we can reverse engineer the probability of success for that project's goals, objectives, etc. that existed at the project's start. These probability statistics could contribute to future, similar projects in that they would provide relevant causative data such as the chances of future project success, given the current situational dynamics.

Let us consider, then, the classifications for postmortem forensics in HR classification theory…(for future research)

Part III: Worker Productivity Dynamics

HRM studies should also include the various relationships that contribute to worker productivity. Although this cannot be fully quantified in a formula, it may be possible to obtain a more accurate weighting of such factors if we use the right type of worker productivity modeling. Such model should at least include the following four aspects of work that would have a bearing on a worker's output: work aptitude, work interest, work mileage (experience), and work ethic. A possible weighted formula for these aspects would be as follows…(for future research)

To delve deeper into these aspects of work, we can consider their related subaspects. For instance, work mileage (as with road vehicles) will vary depending upon the type of work (road) traveled. A person who has driven in mostly urban settings will have a different type of experience than one who has done most of their driving in the country. Likewise, a person skilled in skill "A" in a large company will have a different type of experience than one who has worked just small firms. So while generalizing the skill type (e.g. as skill "A"), the work mileage may still carry different weighting depending upon where the mileage (experience) occurred.

But to more accurately assess such specific weighting, one would need to quantify as much as possible the comparative relationships between the subaspect variables and their parent aspect. For instance, in our above example of working at large or small companies, one would need to know what weighting would working for a large firm have to work mileage as compared to working for just small firms. Let's say that experience from working at large firms counts for 1.5 times more value than working at small firms in our designated worker productivity model. So we need a weighted formula for the four aspects of work but with a mileage type subaspect of "work experience in just large firms." This could present as follows…(for future research)

Now let's use the same weighting rule (large firms count 1.5 times more value than small firms for work mileage type) but this time for a mileage type subaspect of "work experience in only small firms." A weighted formula for such a scenario could look like this…(for future research)

Part IV: Innovation Dynamics

HRM studies would not be complete without also considering the interaction between innovation and human resources. This is because without human resources, innovation would be nearly impossible to achieve, and without innovation, it would be nearly impossible to improve upon human resources management in today's economic environment. So what would be a good model for innovation dynamics? It would certainly need to include for both incremental and disruptive innovation.

We can say incremental to refer to those changes that are made ever so slightly in the processes of large organizations, for instance. Disruptive would be for the type of innovation that requires a sea change in either attitude, function or both, something smaller firms are more adept at. Another way of looking at such innovation distinctions is by simply using the words minor vs. major. And we want to use the word "innovation" here in a practical sense, that which involves the application of an idea(s) to change something already existing, and hopefully for the better (invention is another story).

Now a major innovation may be potentially disruptive, but that disruption is prefaced by various factors. So a good algorithm to help estimate the impact of such type of innovation would have to weigh in such factors. For example, one factor to consider would be the number of levels of reporting hierarchy in an organization. This could easily reach 10 levels in a global company if we consider not just official titles but rather points of reporting (e.g. a contractor reporting to an employee). If the probability of acceptance of an innovative idea generated/presented starting from the first hierarchical level in a company was averaged out to be 1 in 10, 5 in 10, or even as high as 9 in 10 up the line, we can extrapolate the odds of that idea being accepted at the top of the hierarchy (e.g. the CEO of the firm) based upon such odds of being accepted on presentation up the hierarchical line:

Level	1 in 10	5 in 10	9 in 10
1	100%	100%	100%
2	10%	50%	90%
3	1%	25%	81%
4	.1%	12.5%	72.9%
5	.01%	6.25%	65.61%
6	.001%	3.125%	59.049%
7	.0001%	1.5625%	53.1441%
8	.00001%	.78125%	47.82969%
9	.000001%	.390625%	43.04672%
10	.0000001%	.1953125%	38.74204%

Notice that even in an environment highly conducive to accepting virtually all innovative ideas (9 in 10), the top level of a ten-level hierarchy will present a statistical probability of its acceptance of still less than 40%. Thus we can understand why innovation, especially if generated from the bottom up, would have such a difficult time to be accepted at the top level. The impact of these statistics is obvious. If the acceptance level drops as the hierarchical level increases, this will also affect the motivation for generating innovation ideas in the first place.

Another factor which ties innovation with human resources involves the corporate culture itself. As discussed above, the larger the corporation, the more the chance that innovation will only be tolerated at an incremental level rather than at the disruptive level. The corporate "immune system" will see to it that such status quo is maintained (e.g. through managerial structure, internal policies and procedures, etc.).

By extension, those tasks and endeavors undertaken by the human resources of a larger company will tend to have a more left brain orientation than, say, a start-up firm. This means that the left brain of a person will be much more engaged than the right brain or than both brains working constantly together (lateral

thinking). This is because there will also be a tendency of commoditizing anything that is innovative so that the corporation can benefit from the nature of repetitive endeavors. Fine tuned like a Swiss watch, the tendency will be to not rock the boat too much so that this massive undertaking of millions of tasks will be in concert to produce the desired result (e.g. profit), a mass production, if you will, of ideas once spun in someone's innovative mind.

That is why integration of business processes is so difficult in large companies, because each person is mostly likely assigned a specific group of left brain-oriented tasks or roles to carry out. And furthermore, it would be inefficient to have such a person interact individually with the many thousands of other workers at the same time. Technology (e.g. through automation), management, documentation, etc. can only do so much to keep it all together. This challenge to keep it all together does not allow for the chaotic interference of disruptive innovation from within. That in turn results in the suppression of right brain-oriented thinking, which in turn ends up discouraging big picture thinking – hence, the difficulty in integrating business processes in large firms.

At this point in the discussion, an explanation on left brain/right brain processing is necessary. The left brain has been found to be logical, sequential and auditory, as well as detailed-, rule- and time-oriented. The right brain has been found to be intuitive, holistic (big picture thinking) and visual, as well as relationship-, pattern-, principle- and space-oriented. The left brain sees each tree; the right brain sees the forest; lateral thinking allows for seeing both the forest and the trees. If someone is said to not be seeing the forest for the trees, they're not using their right brain enough. If someone is said to be missing the details, they're not using their left brain enough.

Therefore, the best decisions to be made and the fastest way to get there is through lateral thinking. To illustrate: The left brain will notice details (e.g. A, C, E, G) but will not see a pattern → the right brain will pick up the pattern (the letter series given keeps skipping by one letter) and induce or distill a general principle (skip a letter in the alphabetical sequence) → the left brain will look at that principle in a rule-oriented way and can fill in further details (e.g. I, K, M, O, Q…).

If a meeting of workers discuss an issue and only engage the left brain, they may never come to a conclusion. Contrarily, if the workers engage only the right brain, they may come to the wrong conclusion too quickly (lack of sufficient details and proof). Lateral thinking will allow for both. However, the *speed* at which such a right conclusion is reached will be influenced by letting the right brain lead.

That is why good architects of systems and innovators of ideas and enterprises are often right brain thinkers by nature and preference. Those good at execution, management, and maintenance of established systems, enterprises, and ideas are often left brain thinkers by nature and preference. Those good at having to do both (e.g. CEOs overseeing both strategy and operations) are often whole brain thinkers by nature and preference (no dominance of either brain, just a good balance between the two).

Right brain thinkers by nature that have trained their left brain to perform its tasks well (although not preferring such tasks) make excellent innovators because they will be more practical. Left brain thinkers by nature that have trained their right brain to perform its tasks well (although not preferring usch tasks) make excellent operations people because they will not forget the big picture. And whole brain thinkers by nature than train either brain to be able to focus for a while in its domain make excellent top management because they will be able to be more adaptable to any pressing circumstances that may arise.

There are, of course, many other factors that go into the equation, both pro and con for influencing innovation…(for future research)